

## WHAT IS CLAIMED IS:

1. An apparatus for dilution of discharged fuel of a fuel cell comprising:

an inlet for guiding purged hydrogen gas coming from the fuel cell;

5 a reservoir for storing the purged hydrogen gas guided through the inlet; and

a cathode exhaust gas pipe penetrating the reservoir, wherein the cathode exhaust gas pipe has holes inside the reservoir and is supplied with cathode exhaust gas of the fuel cell,

10 wherein the cathode exhaust gas pipe sucks the purged hydrogen gas stored in the reservoir through the holes and discharges the purged hydrogen gas diluted by mixing with the cathode exhaust gas.

2. An apparatus according to claim 1 wherein the inlet and holes are  
15 adapted to be spatially apart each other.

3. An apparatus according to claim 1 wherein the cathode exhaust gas pipe is adapted to bend downward and holes for draining water are provided in a lower portion of the bent portion of cathode exhaust gas pipe.

20 4. An apparatus according to claim 3 wherein a cross section of the bent portion of cathode exhaust gas pipe is adapted to be smaller.

25 5. An apparatus according to claim 3 wherein a collector for condensed water contained in purged hydrogen gas is provided around the bent portion of cathode exhaust gas pipe at the bottom of a reservoir.

6. An apparatus according to claim 1, wherein the apparatus comprises a plurality of means for collecting hydrogen gas from an anode line of the fuel cell.